

Director, MIT Libraries

Fiscal Year 2011/2012 was a year in which the MIT Libraries continued to consolidate and leverage the opportunities made possible by the Libraries' organizational restructuring of FY 2010/2011. With support from the Provost, the Libraries' budget was stabilized at a "new normal" level which enabled the Libraries to resume forward thinking about the provision of information services and information resources to the MIT community.

One important step in resuming a forward-looking focus was a Library Council retreat held in January 2012. In preparation for this meeting, and in subsequent planning processes, four areas of activity were identified for special emphasis by the MIT Libraries. Each initiative takes advantage of the experience and talent of the Libraries new and existing staff, and several reflect recommendations of the Committee on the Library System and the MIT Libraries Visiting Committee. All are aligned with the future vision of the MIT Libraries. Initiatives include:

- Creating a focused set of projects to 1) improve near-term digital content management of specific collections, and 2) develop a shared understanding of the infrastructure and life cycle management approaches needed to manage digital content in the MIT Libraries over the long term.
- Developing an improved technical infrastructure to support the Open Access work flow, including 1) more efficient ways to identify faculty-authored papers and 2) automating deposits where possible.
- Improving the ease with which the MIT community discovers and uses the wealth of electronic resources available via the MIT Libraries.
- Engaging with the MITx initiative to identify ways the Libraries can best support and partner with this initiative.

Each of these initiatives is led by a member of the Libraries' Steering Committee.

In FY2011/2012 the Libraries welcomed a number of outstanding individuals to our ranks; each of whom is already contributing significantly to the MIT Libraries vision for the future.

Tito Sierra joined the Libraries in January 2012 as Associate Director for Technology. Tito brings a wealth of experience from both the academy and industry to his broad responsibility for technology strategy and management across the Libraries.

Joining the organization in March as Director of Research and Head/Scientist, Program for Information Science in the MIT Libraries is Micah Altman. Charged with leading and growing the Libraries active research program in applied information science, Micah brings deep experience in a broad range of research-oriented activities including information science, research data management, and scholarly communication.

In February 2012, Nancy McGovern likewise brought her stature as a national and international leader in the field of digital curation and preservation to the newly redefined position of Head, Curation and Preservation Services.

Other new positions, highly relevant to the Libraries' vision, include Program Head for the Aga Khan Documentation Center and Digital Archivist in the Institute Archives. Across the MIT Libraries these and other redefined positions are key to the success of the MIT Libraries in the future.

Furthering the Libraries' new strategic focus and organizational structure are two Library Fellow positions that were established in FY2011/2012. These two-year fellowships enable the MIT Libraries to provide exceptional early-career library/information professionals with an opportunity to conduct research and contribute professionally to program areas of distinction and strategic importance. Both the Digital Curation and Preservation Fellowship and the Scholarly Publishing and Licensing Fellowship have attracted extremely strong pools of applicants.

Nor have the Libraries neglected the impressive strengths resident in our existing staff. Recognizing the ongoing impact of the reorganization on existing staff, training and professional development activity rose sharply during FY2011/2012. The highly talented individuals who contribute to the MIT Libraries are a continuous source of energy and innovation for our work and mission.

Over the course of the year the Libraries also bade farewell to five retirees whose collective service totaled over 145 years. FY2011/2012 additionally saw the departure of Steven Horsch, who ably led the Libraries' Office of Donor Relations and Stewardship since 2009. Steven's contributions are reflected in the growth in participation in the Libraries annual appeal as well as the many successful events hosted by the Libraries during FY2011/2012.

Innovation continued to distinguish the Libraries extensive service offerings during FY2011/2012. A new service, Borrow Direct, allows MIT faculty, students and staff members to request circulating materials directly from other research libraries in the Borrow Direct cooperative. Members of the MIT community who have MIT Libraries borrowing privileges and a Kerberos certificate are now able to borrow circulating books directly from the libraries of Brown University, Cornell University, Columbia University, Dartmouth College, Harvard University, the University of Pennsylvania, Princeton University, and Yale University.

Other examples of FY2011/2012 innovation include:

- Two pilot projects that experimented with alternative approaches to purchasing electronic books at the point of need; a concept that significantly expands collection development methods available to the Libraries.
- The transfer of curation responsibilities for the Aga Khan Trust for Culture Archnet Digital Library to the Libraries; a project that involved considerable creativity.
- A pilot project to manage and store video in the cloud using DuraCloud technology; a first step toward better stewardship of an increasingly prevalent medium.

- Academic Media Production Services (AMPS) support to the demands of the initial, fast-tracked MITx course offering; a project that required creativity and agility well beyond the norm.
- The extraordinary gift to the Institute Archives and Special Collections of Noam Chomsky's personal archives; a generous act that presents numerous opportunities for innovation as the collection is processed and digitized.

Innovation also pervaded the Libraries space planning activities in FY2011/2012. Shepley Bulfinch completed a review of current Libraries spaces with the goal of discovering opportunities to develop innovative work and study spaces to support 21st-century pedagogies and a changing student body. Dovetailing with responses to the Libraries Triennial User Survey, and the report of the Working Group on the Future of Campus Teaching and Learning Spaces (of which the MIT Libraries was one sponsor), this review illuminates exciting opportunities to transform a number of Libraries spaces for the benefit of on-campus education.

Although it is the nature of an annual report to focus on the novel and exciting, emphasizing only new achievements runs the risk of deemphasizing the extraordinary diligence and intelligence that was routinely brought to bear on the critically important work of evolving and highly effective operations. The day to day responsibilities of instructing students, promoting, discovering and preserving knowledge, and improving scholarly communication within and beyond MIT requires, in Diane Geraci's words, "exceptional service and innovative leadership across a wide range of programs and systems."

Because the MIT Libraries operate in the context of other academic and administrative units at MIT, innovations such as the "Digital MIT" initiative, IS&T's investment in mobile applications, and the development of a vastly improved space planning framework have produced opportunities and workflow changes from which the Libraries have also greatly benefited. We thank our MIT colleagues for the advances made possible through those efforts.

The accomplishments of the MIT Libraries were too many and too varied to cover in detail in this brief overview, but can be discovered in greater depth in the reports of the individual Associate Directors. No annual report of the MIT Libraries would be complete, however, without sincere thanks to the staff of the Libraries, a round of applause for the faculty and students who serve so thoughtfully on the Committee on the Library System, and heartfelt thanks to the new President of MIT, L. Rafael Reif, for his support to the MIT Libraries during his term as Provost for the Institute.

Ann J. Wolpert
Director of Libraries

Administrative Services

Highlights of the Year

Administrative highlights of fiscal year 2012 include the following:

- Fiscal conditions returned to a normal albeit restrained status, with new budget allocations for the first time in three years.
- Due to the return to a normal fiscal state and the backlog of initiatives awaiting action, the number of positions posted and filled over the course of the year was unusually large.
- The Libraries commissioned a study by Shepley Bulfinch to assess the state of library spaces and to provide a framework for future space planning.
- The position of Director of Research was created to focus on the Libraries' Program in Information Science. Research activity increased substantially in the second half of the fiscal year.

All-Staff presentations during the FY2012 academic year included the following agenda topics:

Fall	Winter	Spring
<ul style="list-style-type: none"> • Understanding Our Users: Themes from User Experience Studies • Current Software Development and Analysis Activities • New Department Brief: Specialized Content and Services 	<ul style="list-style-type: none"> • Pilot Project to Preserve MIT-Created Video Using DSpace and DuraCloud • Harvard Library Lab Project: The Challenge of Faculty Archives 	<ul style="list-style-type: none"> • State of the Libraries • Report of the Working Group on the Future of Campus Teaching and Learning Spaces • Results of the Fall 2011 User Survey

Budget and Finance

Fiscal Year 2012 can be characterized as a return to “normal” fiscal conditions at the Institute and in the Libraries. A budget request was submitted and an encouraging response was received, with new base additions in several categories as well as some non-base funds. The most significant base budget additions were in collections, both to offset publisher price increases and to purchase additional content in support of Institute Initiatives. The Libraries also received new base funds to restore a portion of the service hours which were cut in the FY2010 and FY2011 Institute-wide budget reductions. The loss of open hours was felt very sorely by students, and their strong desire to see them increased was recorded in multiple feedback loops. On the non-base side, funds were allocated for several digital initiatives which extend the Libraries' activities in important new directions. Without such seed funding, the Libraries cannot address the growing needs in critical areas such as digital preservation and archiving.

Several other specific fiscal highlights bear mention.

Furlough Savings

In FY2011 the Libraries imposed two weeks of mandatory furlough on all staff in order to meet budget reduction mandates without causing even deeper immediate cuts to collections, services and staffing levels. Those temporary savings of nearly \$400K needed to be replaced with permanent savings eventually, and it was felt that would be possible as opportunities presented themselves in the short term – including greater operational and collaborative efficiencies, selective position attrition, and increased resource development. Significant progress to identify the permanent savings was realized in FY2012.

Increased Centralization

The Libraries' 2010 reorganization presented an opportunity to restructure many of our fiscal practices with regard to operations. Those practices were further refined in FY2012 as experience was gained and as several administrative assistant roles were redefined and balanced. By centralizing most fiscal review and control activities – not the purchasing but rather the documentation and account reconciliation – we have improved compliance with required Institute practices and reduced the number of GL account inaccuracies. Essentially, time formerly spent by central fiscal staff adjusting and correcting local expense actions has been shifted to an earlier point in the process, eliminating most errors, satisfying audit requirements, and improving our ability to analyze expenses.

Serials Accounts Consolidation

In an effort led by Information Resources staff, the serials account structure within Aleph (the Libraries' Integrated Library System) was changed from that of the Divisional/Branch libraries to a more consolidated structure reflecting the new organization. Changes were made to the account infrastructure in Aleph and SAP in order to synchronize the two systems.

Payment Consolidation

For many years the Libraries have taken steps to increase the efficiency of vendor payment procedures since those activities produce thousands of transactions which carry a high administrative overhead. Due to a workflow improvement in MIT's central fiscal offices, we can now consolidate payments to our largest monograph supplier (YBP) in a single monthly check, rather than having to order and process dozens of checks each week. This represents a substantial time savings for both the Libraries and MIT Accounts Payable.

Space

Space Study

"Framework for Space Planning in the MIT Libraries: Phase One" was produced by the architecture firm Shepley Bulfinch over the course of the year. The last comprehensive space planning effort in the MIT Libraries—"Libraries Master Plan"—was completed in 2000 by Shepley Bulfinch as well. This year's process, which began in the fall of 2011 and was completed in early June of 2012, focused on the development of a framework for library space planning for the next five to ten years. Input was provided by numerous stakeholders including CRSP and the Provost's Office, MIT Facilities, the Faculty Committee on the Library System, Library Council and the Public Services User Experience Group. In addition to the Libraries' Desired Future State, the study took into account the important report of the Working Group on the Future of Campus Teaching and Learning Spaces (March 2012), as well as MIT's Vision 2030 Master Plan.

Capital Renewal Ranking Process

The Libraries participated in a new Capital Renewal Ranking Process instituted by CRSP in conjunction with its annual renovation request cycle. The ranking process created an opportunity for departments to weigh in on the relative condition and value of space assets under their control, in order to arrive at some common measures and priorities in terms of infrastructure renewal.

Projects Completed or in Process

The Barker eighth floor was converted from stack space to a dozen group study cubicles, funded jointly by the Libraries and CRSP.

A planning study funded by the Libraries to consider options for a GIS/Data Visualization Lab/Classroom was completed by the firm of Gensler and Associates in November of 2011. In addition to articulating a program vision for the facility, it recommended a set of specifications that can be used to identify potential sites. An initial test fit in Hayden was unsuccessful, so alternatives will be sought in FY2013. Once a potential site is identified, a Stage One design and cost estimate can be prepared for fundraising purposes.

In a project funded by the Libraries and approved by CRSP, the Barker Reading Room will be converted to a 24-hour study space by opening a new doorway directly from the Building 10, fifth floor elevator lobby. Concurrently the ceiling of the reading room, including a central glass oculus, will be restored to its original state thanks to the generous gift of an anonymous donor. Work on both projects is expected to take place between August and December, with the new 24-hour service commencing in January 2013.

CRSP has agreed to fund restroom facilities on the fifth floor of Barker Library to meet the needs of the new 24-hour reading room.

CRSP funding has been requested for a full renovation of the East End of the Hayden Basement (Building 14) to upgrade work areas for expanded resource sharing and digital scanning operations. This area is sorely in need of improvements.

CRSP has approved a project to create a staff work area for the expanded Aga Khan Documentation Center in the ground floor of Rotch Library (to be funded by the Aga Khan endowment).

The Digital Instruction Resource Center (DIRC) on the first floor of Hayden, which is the Libraries' largest and most heavily used instruction space, received upgrades to furnishings and equipment.

The Hayden Vending Machine Area was upgraded by the addition of a coffee machine, fresh paint, a new tile floor, and improved lighting. These upgrades were carried out to provide minimum-level beverages and snacks for Hayden Library users who have been requesting a more convenient food service ever since Walker Memorial closed several years ago. This is no substitute for a café, but we hope it will help to mitigate the demand until a food service can be provided in Hayden.

Highlights from Other Administrative Areas

Assessment

The 2011 Triennial User Survey was developed last summer and early fall and launched in October 2011. The overall response rate dropped slightly from previous years (2005 and 2008), but remained relatively high (43.7 percent), with a consistent rate from faculty (31.6 percent). Summary results were shared with staff in January, and a preliminary analysis in February. Results as well as the analysis are expected to be used extensively over the next year by all sectors of the Libraries.

An assessment plan for calendar year 2011 was completed including fourteen units of the Libraries, and a summary was prepared for the Library Council retreat.

A “monthly metrics” pilot project was completed in April 2012, allowing the Assessment Team to experiment with various data visualization and infographics techniques, highlight possible areas of interest to staff, and encourage a higher level of awareness among library leaders.

A dashboard of metrics representing useful data about trends in library services, collections and workflows was created in September 2011 and will be refined this fall.

Annual statistics gathering for the Association of Research Libraries was led for the first time by the Assessment Librarian. Several statistics were updated, and a process was begun to centralize the ongoing coordination of statistics gathering with the Assessment Librarian.

Communications and Marketing

The Libraries’ Marketing Team, formed in FY2011, continues to focus on improving the coordination and effectiveness of marketing efforts across the library system. The team completed over 40 projects in nearly all areas of the organization over the past year.

Integrated Marketing Communications is essential to increasing awareness of library services, news, events and initiatives. Significant progress was made to coordinate news stories, advertising, and publicity across multiple media channels. The focus, in particular, was to increase our exposure outside of traditional Libraries’ news channels.

Communications continued to be a key component of many of the Libraries’ outreach activities, bringing in audiences for a wide array of library workshops, study breaks, alumni and community events, concerts, and exhibits. These are important opportunities to engage with the MIT community and build positive impressions and awareness, further strengthening the Libraries brand.

The exhibits and events associated with the Maihaugen Gallery had an active and successful year. In particular the *Glass@MIT* exhibit had broad appeal across the MIT Community and led to engagement with the MIT Glass Lab, the Chemistry Department, the MIT Museum, the Connick Foundation, and other groups.

Communications efforts and activities for the next year will be guided by the results of the Libraries' 2011 User Survey. There is a wealth of data from the survey that will help inform our marketing and communications efforts and improve our ability to tailor messages and raise awareness with specific user groups. As the Libraries' Resource Development program is retooled, and a new lead is hired, there will be opportunities to increase communications around Libraries' fundraising efforts and the Institute's new capital campaign.

Desktop Support

Desktop support requests were down by 20 percent from FY2011 as the result of increased hardware standardization, as well as improvements to public printing and the deployment of Pano Zero clients to several locations in the library system.

The staffing level of the Desktop Support team dropped from three FTEs (1 administrative, 2 support staff) to two FTEs (1 administrative, 1 support staff) with a departure in December. As a result, the contracted support from IS&T was increased from 20 to 28 hours per week to help offset the loss. This staffing level is adequate during most periods, but does not accommodate the project-oriented work which constituted a significant portion of the third staff member's time. Temporary solutions are in place or being sought.

Athena printers were deployed in Dewey and Hayden Libraries, completing the total transfer of public printing to IS&T infrastructure.

Human Resources

Significant recruitment activities included 13 new arrivals plus the posting of an additional 14 positions (seven administrative and seven support, a mix of both continuing and term). Many searches are currently in progress. The retirements of five senior staff over the course of the year reflected a combined total of 145 years of service to the MIT Libraries. The staff turnover rate of 9 percent was typical of recent years.

A Library Fellows program was launched and searches for two positions are currently moving forward. The program areas chosen for this new initiative are Digital Curation and Preservation, and Scholarly Publishing and Licensing. More than 200 applications have been received.

Administrative staff salaries showed a significant drop against peers in the ARL salary rankings and also specifically as compared with MIT's strongest competitor for staff, the Harvard Library.

The diversity of the library staff dropped from 12 percent in FY2011 to 11 percent in FY2012. This figure has hovered between 10 and 12 percent for many years.

As expected, FY2012 marked the second year of a significant increase in skill development activities for the library staff.

Keith Glavash
Associate Director for Administration

Information Resources

The Information Resources (IR) directorate is comprised of departments whose work focuses on the spectrum of activities that support and sustain a wide range of content, from acquisition to long-term access: Acquisitions, Metadata and Enterprise Systems, Collection Strategy and Management, Curation and Preservation Services, Information Delivery and Library Access, and Institute Archives and Special Collections. Together they provide exceptional service and innovative leadership across a wide range of programs and systems to manage the life cycle of information resources in order to “... promote discovery, preserve knowledge, and improve scholarly communication.” [From Libraries Mission Statement, February 2009]

The key strategic directions laid out in the Libraries planning document, *MIT Libraries: Achieving a Desired Future State for 2015* [March 2009] guide the work of IR departments. They continue to evolve organizationally to *create the next generation research library organization* – demonstrating that this is more of a continual process than an end state. Their work spans physical and virtual space and services. Many of their accomplishments fall under the rubric of *build and strengthen relationships with faculty, students, and the MIT community; improve infrastructure for digital content management; and transform library space*. They also *appropriately collaborate with strategic partners outside the Libraries* including on campus with the DUE, IS&T, MIT Press, and OCW, and off campus with various library consortia including Borrow Direct, our Ivy-Plus peers, and directly with the Harvard Library. Their work and impact is far-reaching and ongoing. What follows are brief highlights.

Acquisitions, Metadata, and Enterprise Systems

Acquisitions, Metadata, and Enterprise Systems (AMES) continued its organizational evolution under the able leadership of two senior library managers and with the assistance of R2 Consulting. R2 recommended a radical restructuring along functional lines to both enable the redeployment of staff to support the growth areas of digital content -- content that is managed locally, and electronic resources - content that we license and is hosted elsewhere. Their new structure is meant to encourage closer collaboration within the AMES department as well as across departmental lines. The new teams are: Electronic Resources, Tangible Formats, MIT and Digital Publications, and the Library Enterprise Systems team. The latter will serve them all, as well as provide technology-based services more broadly across the Libraries. While planning and implementing a change of this magnitude takes an incredible amount of time, the “regular” work of the AMES staff continued apace. Among their noteworthy achievements are: employing a wide range of automated processes to improve cataloguing efficiency and reduce

handling individual records; implementing record loading that provides accurate Barton links to electronic resources thereby improving access to library users; successfully piloting a mediated deposit service for MIT technical reports and working papers to both improve service to Departments, Labs, and Centers and increase submissions to DSpace@MIT; provision of service enhancements to MIT's OpenCourseWare including custom taxonomy of course subjects; and improved statistics on how users access our electronic content to assist us in planning future service improvements. Other accomplishments that focused on acquiring content and making it available more quickly include: participation in two purchase-on-demand acquisition pilot programs, piloting new workflows for shelf ready books in the Sciences to get them to users more quickly, implementation of a new method for ordering electronic resources to streamline and track these important acquisitions more effectively, and upgrading to the latest version of SFX to manage and provide access to electronic content.

Collections Strategy and Management

By the end of its second year in operation, the Collection Strategy and Management (CSM) department distinguished itself in several significant ways including: the implementation of sound fiscal management strategies for the collections budget entrusted to the Libraries by the Institute; demonstration of inspired business acumen when dealing with vendors and publishers; employment of a combination of quantitative and qualitative criteria to drive decisions for purchasing library resources in response to user needs; and refinement of a rules-based approach to using space for physical collections in the Libraries as well as in our storage facilities. The latter effort continues to optimize the location of collections based on actual use and proximity to primary user groups balanced with available space. This proved to be particularly helpful for the Libraries' engagement with Shepley Bulfinch, the architectural firm employed by the Libraries, to develop a space framework for the next generation of the MIT Libraries. In addition, and in true MIT spirit, CSM ran two user-driven pilot programs that employed more precise strategies for purchasing content specifically requested by library users. These "purchase-on-demand" programs augmented and complemented traditional collection development methods. In one pilot, requests for interlibrary borrowing were automatically turned into book purchases to be added to the collection if the requests met established criteria; and in the second pilot, an electronic book purchase was triggered if an authorized MIT user spent a predetermined amount of time looking at an e-book, pursuing more than a few pages of text online, or attempted to print a page.

Curation and Preservation Services

The Curation and Preservation Services (CPS) department is the new name of Preservation and Conservation Services and as its name suggests, emphasizes a broad life cycle approach to ensuring long-term access and curation for all information assets under the Libraries purview. Coordination of both digital and physical preservation are now being conceptualized together and since February ably led by Nancy McGovern, CPS' new department head. Their successes throughout the year were many. Highlights include an assessment of the preservation status of MIT electronic journals; implementation of a newly constituted Disaster Response Team; completion of physical treatments for a gift-sponsored special collection, the Charles J. Connick Stained Glass Collection, and near completion of another, the

Vail Access (Rare Book) Project sponsored by Thomas J. Peterson; and direction and mounting of the first-class exhibition, *Glass at MIT: Beauty and Utility*. With the arrival of a new department head, several additional noteworthy initiatives got underway including the successful proposal for a strategic initiative in FY13 to improve the infrastructure for digital content management, the acceptance of another proposal for a library fellow to work with CPS for two years, and the start of the transition to MIT of the Digital Preservation Management workshop series, the popular, award-winning continuing education program developed by Anne Kenney (Cornell University Libraries) and Nancy McGovern.

Information Delivery and Library Access

Building on its successful first year of operation, ID&LA gained its stride in providing high quality, point-of-need information assistance and timely delivery of library materials to the MIT community in support of scholarship, teaching, and research. Of the many improvements to their workflow and operations that allowed for improved services, these particular improvements stand out for directly benefiting library users: implementation of the new, user-initiated Borrow Direct book delivery service with our “Ivies Plus” cohort of Brown, Columbia, Cornell, Dartmouth, Harvard, University of Pennsylvania, Princeton, and Yale; and a variety of enhancements to using the Libraries spaces led by the Service Operations Team that included modernizing our policy for food and beverage use, developing options for improved computing in the Libraries, and adopting better signage and other graphics. Illustrating its central role in the Libraries organization, ID&LA staff both led and contributed to many other cross library initiatives -- all consistent with our Directorate’s vision of “Access to information where and when you need it.” They partnered with other library departments to plan for a fundamental reshaping of the mediated services we provide to library users, implemented one of our user-driven “purchase-on-demand” pilot programs to acquire library materials most wanted by the community, led the Discovery Promotion + Positioning Team to simplify the presentation of key library resources on the Libraries’ website, and contributed to the MIT Libraries Assessment Team and the 2011 Survey Analysis Team in support of the Libraries goal of evaluating services and programs in order to be responsive to the needs of library users.

Institute Archives and Special Collections

The Institute Archives and Special Collections (IASC) continued to demonstrate that it is a vital and essential component of the Libraries and the Institute. Their central themes this year were firmly launching their support for “Digital MIT” and significantly increasing outreach and instruction. With the support of the Provost for a two-year position, IASC hired its first digital archivist. Real progress has been made in a variety of key areas including establishing born digital archives and curation best practices and standards, accessioning and managing MIT administrative born digital content, and development of a pilot digitization workflow. Outreach activities incorporating rare books and archival materials for internal MIT audiences, MIT alumni, and more broadly for locally hosted professional conferences continued to demonstrate that stewardship of these special materials does indeed make a difference to the educational and research mission of the Institute. Behind an exceptional number of instructional sessions overall that incorporated IASC content, several prominent examples include rare book

presentations at Freshman Pre-Orientation Program (FROP) and for Concourse, the freshman community focused on integrating science and humanities; several Historical Method class sessions on archival and rare book materials; and multiple well-attended IAP sessions on diaries in the Archives, book collecting as a hobby, and the very popular “weird science” session on the unexpected treasures in the Archives. In addition, several other key initiatives moved forward under Tom Rosko’s leadership: the Chomsky Archives was acquired and an archivist hired, the Vail Access (Rare Book) Project moved forward for its final year with a generous gift of Thomas J. Peterson, and external collaborations with colleagues at Harvard University Archives on “Zone One,” a Harvard Library Lab grant, to explore the efficacy of a “rescue repository” for digital faculty archives was completed.

Finally

Two years ago, the Libraries implemented a new library organizational model, one meant to emphasize the increasingly internet-based, interdisciplinary, international, and inter-institutional teaching and research environment that is MIT. IR departments have embraced the change necessary to meet the needs of library users working in this dynamic context. IR departments continue to evolve both their internal organization structures as well as the services they provide. They evaluate their work practices and strive for best practices in every aspect of their work. They employ data-driven approaches to maximize efficiencies and improve services. Their ambitions are only constrained by the resources, both staff and financial, available. Their achievements as outlined here are all the more remarkable for it.

This Annual Report only represents a high level overview of the accomplishments of the IR departments. The rich details and numerous projects both large and small are well chronicled in the individual Departmental Reports. Please refer to them for a more thorough depiction of the breadth of contributions of the dedicated, dynamic, and innovation staff in the IR directorate.

Diane Geraci
Associate Director of Information Resources

Research and Instructional Services

The Research and Instruction Services (RIS) Directorate works with MIT faculty, students, and staff to provide the library resources and services required for their success in research, teaching, and learning. Organized into five departments – Instruction and Reference Services (IRS), Liaisons for Departments, Labs, and Centers (LDLC), MIT Video Production (MVP), Specialized Content and Services (SCS), and User Experience (UX) – RIS works to optimize the discovery, access, evaluation, and management of diverse scholarly information sources and types, and offer high-quality spaces for reflective and collaborative work and learning. By promoting and providing a library environment that anticipates community needs, it sustains a culture of lifelong learning, experimentation, and innovation.

Essential to the Libraries’ success in supporting MIT’s mission is a keen understanding of faculty, student, and staff needs in the domain of scholarly information resources and tools. RIS staff, working with their colleagues in other library directorates, engage with the MIT community continuously. These

rich interactions provide the Libraries with the knowledge required to develop a service portfolio that makes the entire MIT enterprise more productive in its educational and research endeavors. Through engagements ranging from one on one consultations to classroom instructional sessions to attendance at symposia and lectures to researching websites to focus groups to surveys to usability studies and other means, the Libraries triangulate relevant data to constantly evaluate service needs and promote best practices to make the MIT “product” one that the rest of the world strives to emulate.

This report highlights many of the important accomplishments and activities of the past year. While these successes are typically a product of collaboration across departments within RIS and more broadly across the Libraries and MIT, they are organized by their “home” department within RIS.

Instruction and Reference Services

A new system-wide instruction plan has been drafted, and once finalized, will build on the current successes to enable MIT community members to be productive in their use of scholarly information resources and tools in their current and future endeavors.

The Digital Instruction Resource Center (DIRC) Committee oversaw a major update to the DIRC, resulting in a greatly improved flexible classroom to support the Libraries’ instruction program.

A joint project lead by multiple departments to reshape mediated services developed an action plan that will be implemented this coming year, with the goals of providing a more consistent and improved user experience across service points, a more effective deployment of staff, and provide increased opportunities for service innovations.

Work was completed on an infrastructure model to facilitate the creation of self-help documentation for the MIT community; a current group is investigating issues specific to video tutorials.

Citation management training and expertise continues to be a highly valued service provided by the Libraries. Work has begun to analyze how these services might be expanded to encompass and integrate other aspects of personal content management.

Liaisons for Departments, Labs, and Centers

Liaison relationships to departments, labs and centers (DLC) were expanded to fill existing gaps, resulting in new assignments for Media Lab, Engineering Systems Division, Edgerton Center, and the Center for Arts, Science, and Technology.

Liaisons continue to work closely with the Office of Scholarly Publishing and Licensing to fulfill the Libraries’ role in supporting MIT’s faculty open access policy. These efforts have contributed to over 70 percent MIT faculty actually being aware of the policy, and improved efficiencies in recruiting papers.

The scope of the multidisciplinary energy group was expanded to include the environment, responding to MIT's new Global Environment Initiative, and a new group was formed to better understand how DLCs are using various media in their research and teaching.

MIT Video Production

The launch of MITx was ably supported by MVP. Responding quickly and with agility the group provided critical editing services for close to 300 individual video files along with multiple versions of each file, providing an important contribution to the success of 6.002x.

Video production in the field and studio and corresponding post production services experienced another year of high demand, with successful work ranging from close collaboration with the Singapore University of Technology and Design and MIT's Teaching and Learning Laboratory producing over two dozen video lecturettes in support of their innovative new curriculum to a retrospective documentary highlighting Susan Hockfield's accomplishments during her tenure as MIT's sixteenth president.

Specialized Content and Services

Months of detailed negotiation between the Libraries, the Trust, and School of Architecture and Planning resulted in the first Program Head for the Aga Khan Documentation Center being hired last fall, and the curation responsibilities for the Aga Khan Trust for Culture's Archnet Digital Library being successfully transferred to the Center and SCS in January.

The Music Library published several new video oral histories and began work in converting forty-two previously published oral histories on cd-rom (some with accompanying written transcripts) to provide online access to all the interviews and transcripts. Work also began in testing the Variations software as a tool for providing streaming access to required music for classes.

The Libraries' formalized its services for research data management, offering consultation, instruction, and expertise on best practices for developing research data management plans and other associated issues. The team helped draft MIT's official response to the Office of Science and Technology Policy's RFI on Public Access to Digital Data Resulting from Federally Funded Scientific Research. It also supported MIT's participation in the ARL/DLF E-Science Institute, producing a report highlighting opportunities for MIT to improve its support for researchers.

Work continued with Harvard on the FACADE2 project, updating and improving the curator's workbench, and exploring strategies for developing a successful approach to intellectual property concerns regarding project documents.

Geographic Information Systems (GIS) services evolved its support structure by reallocating existing resources to create two new positions – the Geospatial Data Librarian and Statistics Specialist and the GIS Support Associate. Work was also done to upgrade the Geodata Repository System and the Arcgis search tool.

The Social Science Data Services Program reviewed the membership in the Harvard MIT Data Center to insure DLC stakeholders are satisfied with the service parameters.

The Charles J. Connick Stained Glass Foundation Collection project was completed, and made accessible through the Libraries' online Dome Visual Collections.

The Distance Education group within SCS continued to provide essential services for MIT's teaching and research programs, providing nearly 2,000 hours of lecture capture in support of over 90 courses, supporting eleven video conferencing systems across campus and consulting on numerous other installations this past year. The group also supported over 50 live event webcasts.

TechTV's collection of MIT community videos now approaches 15,000. This represents a growth of 52 percent from last year. With the successful Touchstone integration its use in support of course instruction has also increased significantly.

The Libraries participated in pilot project to preserve MIT created video using DSpace & DuraCloud. The project demonstrated that with dedicated resources DSpace can be used to store and retrieve video files, and that DuraCloud represents a viable strategy for replicating this video content and thus enhancing the preservation strategy for this content. It also provided a number of lessons that will help inform the MIT Libraries in the next phase of establishing digital video curation and preservation practices.

User Experience

The Library's third Triennial User Survey was launched last fall. With over 7,000 responses and an overall response rate of 44 percent, it provides rich data to inform future service initiatives and current satisfaction and awareness of existing services. While the data is still being analyzed, initial conclusions highlight the communities' appreciation of e-content, library spaces, and customer service.

Staff contributed to developing both a framework for library space planning for the next decade as well as the Institute-wide Working Group on the Future of Campus Teaching and Learning Spaces. The framework outlines opportunities to transform library spaces to further encourage and reinforce engagement with MIT's teaching and research activities, while the Working Group Report highlights how library space can be leveraged to improve MIT's desire to increase faculty student interaction.

The Libraries' homepage was improved to make it easier to locate content owned or licensed for the MIT community. Based on usability testing the page's tabbed search box was redesigned and relabeled to make options clearer and more intuitive for users.

In January the Libraries' were incorporated into MIT's iPhone and Android app, giving smartphone users the ability to easily search and request books, manage their accounts, view library hours and locations, and ask questions.

Looking forward the staff of the Research and Instructional Services Directorate will continue to redefine the role of the MIT Libraries to meet MIT's dynamic and evolving research and teaching environment.

With a keen focus on improving the experience and productivity of faculty, students, and staff, RIS will continue to be agile, creative, and data-driven, with an ongoing commitment to providing the best possible services with its available resources.

Steve Gass

Associate Director for Research and Instructional Services

Technology

This report highlights the accomplishments of the two groups that make up the Technology directorate – Software Development & Analysis (SDA) and IT Infrastructure. Collectively, these groups build and maintain the digital content management and delivery infrastructures to ensure that we acquire, store, preserve, manage, and provide access to MIT's intellectual output in all of its diverse digital forms. Additionally, these groups provide software development and systems administration consultation for the staff of the MIT Libraries. The demand for technology expertise and support in research libraries has grown, as library services have become increasingly digital and technology dependent.

The SDA department continued to provide software development, technology consultation, and systems analysis for numerous digital library projects. These contributions advanced several key initiatives for the MIT Libraries this fiscal year, including the Open Access (OA) initiative, emerging preservation support for library-curated content, and enhanced institutional repository services. Progress occurred despite continued challenges in staffing. Recruitment for two positions, a Software Engineer and a Web Developer, were a major focus of attention this year. The Software Engineer position was filled at the end of the fiscal year and will provide much-needed support for our expanding GIS service portfolio beginning in FY2013. Active recruitment for the Web Developer position continues.

The IT Infrastructure group continued to improve the MIT Libraries server infrastructure environment on several fronts, most notably in the areas of networked storage, security, and uptime. These systems improvements add up to a more robust infrastructure for the Libraries' ever-expanding information technology needs. The enterprise storage upgrade completed this year represents a significant modernization of our digital storage environment, and will enable new capabilities in secure digital archive ingest, processing, and preservation in the coming year. The IT Infrastructure group continued to provide technology support for a growing portfolio of library services requiring server software tool deployments and upgrades. Finally, we experienced no significant downtime for any production systems this year.

Selected Software Development & Analysis Initiatives

Institutional Repository Upgrades

The software platforms that underlie the DSpace@MIT and DOME repositories have fallen behind the DSpace community release by two major release versions. Updating this software will provide the Libraries with several new important functions, notably the ability to perform curation tasks for preservation and metadata acquisition. Planning work was completed for a phased project to update the DOME and DSpace@MIT software platforms within the 2013 fiscal year. Preliminary work on the DOME upgrade has already been completed, with a production deployment scheduled for fall 2013.

Open Access Initiative

While we continue to streamline the OA content acquisition process, as well as add new DSpace workflow and public functions, a parallel effort has begun to identify a longer-term solution for OA content management. Commercial systems, such as Symplectic Limited's Elements, are being evaluated and tested, and substantial work has been done to estimate the effort of integrating with such systems. In the meantime, incremental improvements continue to be applied to the current system.

Video Content and Cloud Storage

SDA joined members of the Specialized Content Services department, along with the DuraSpace organization, to explore the challenges of storing and managing video content. A pilot project to manage and store video using the DuraCloud cloud storage service was initiated and completed in FY2012. A large set of videos produced for the MIT 150th anniversary event was identified, described, and written to DuraCloud storage as part of the pilot. The pilot yielded numerous valuable insights into the challenges of managing and storing video that will inform future efforts in this space.

Exhibit3 Project

A crown jewel of the research work done under the auspices of the SIMILE project is the Exhibit data-publishing platform. This widely used tool had been limited to small collections, but a project with MIT Libraries and Zepheira (funded by the Library of Congress) to extend its capacity by integrating a server back-end was completed successfully in FY2012. The Exhibit3 platform will continue to evolve as adoption of the new platform grows within the Exhibit open source community.

VIVO

The evaluation of VIVO, a semantic web platform designed to facilitate scholar and research discovery, continued in FY2012. VIVO is being evaluated as a potential tool to improve the Libraries' technical infrastructure in support of the MIT Faculty Open Access Policy. The potential of VIVO lies in its ability to represent, manage, and build relationships between MIT-identified authors and their scholarly work.

MIT Digital Theses

The e-thesis management program was re-invigorated in the fall of 2011 and has progressed substantially in FY2012. The deployment of a “Dropbox” version of the software for the student community has significantly enhanced the submission process. A technical roadmap for progressively enhancing the e-thesis management system has been established, and pilot communities have been recruited. SDA will also contribute to a new initiative to revamp the “Vireo” software platform that underpins our service.

FACADE Curator’s Workbench

The MIT Libraries continues to provide technology guidance for the FACADE (Future-proofing Architectural Computer-Aided Design) project. FACADE was a multi-year research funded project to create a center for excellence around architectural archives. This year the MIT Libraries received support under the Harvard Library Labs program for a collaborative project with Harvard to update one important component of the FACADE tool chain, the so-called ‘Curator’s Workbench’. This tool allows metadata assignment, tagging and identification of large collections of architectural project data, and the creation of preservation-friendly 3D CAD models. Substantial work has been done, and the project is scheduled for completion in fall 2012.

Selected IT Infrastructure Initiatives

Enterprise Storage

This year the Infrastructure team completed the migration of MIT Libraries data to an EMC VNX5300 NAS enterprise storage device. Significant workload analysis and growth projections were completed in collaboration with IBM and EMC sales engineers to identify the proper specifications of the device. A competitive bidding process supported by MIT’s Procurement Office enabled the Libraries to acquire the device at a price point significantly below both list and normal non-profit educational discount levels. Migration of production data to the new storage infrastructure occurred without data loss or disruption of service. This infrastructure upgrade has significantly improved the Libraries’ ability to service growing digital storage needs over the next few years.

Security Upgrades

Two server security upgrades were introduced this year to further improve system stability and continuity of service. The Infrastructure group worked with IS&T’s Network Operations group to build VLANs for the Libraries’ server infrastructure. Additionally, port filters were installed on our servers. These two upgrades will help to protect our infrastructure from hostile external network traffic and lower our risk of becoming the target of a successful computer hacking attack.

Web Infrastructure Upgrades

The Infrastructure group made significant progress, in collaboration with the User Experience department, to improve the Libraries' public-facing and staff-facing website infrastructure. This work included a major deployment of the WordPress Multi-Site content management system, numerous upgrades to supporting back-end software (e.g., PHP), and data migration from MediaWiki wikis to IS&T's Confluence wiki system. Additionally, servers were configured and deployed in support of the e-thesis management program. The Infrastructure group also supported major upgrades of the Ex Libris SFX system, a critical component for electronic resource delivery.

Process Improvements

The Infrastructure team worked on the formalization of MIT Libraries processes and procedures to improve internal service responsiveness. The team established a single point of contact for reporting infrastructure and desktop support issues. New guidelines were established to improve communications around scheduled maintenance of computer systems. Additionally, the team developed standard protocols for developers and system managers to submit and track requests for infrastructure work.

Looking Forward

The demand for technology expertise, development, infrastructure, and support for digital projects and technology-intensive library initiatives continues to grow, stretching the capacity of the Libraries' technology systems and staff. Progress has been made on the technology-staffing front, with the appointment of the Associate Director for Technology in January 2012, along with a new Software Engineer hire at the start of the new fiscal year. We also expect to fill a vacant Web Developer position in the fall. These new hires will increase the Libraries' capacity to grow and expand its digital library infrastructure, enhance the discovery and access of electronic resources, enable new library service offerings, improve staff workflows, and advance long-term digital preservation.

Tito Sierra
Associate Director for Technology